AMENDMENT TO THE CLAIMS

The listing of claims will replace all prior versions and listings of claims in the application:

18. (Currently amended) A method of delivering solute to a target location, the method comprising the steps of:

providing ~~a~~ at least one ~~crosslinked thermosensitive~~ cellulose ~~ether gel structure~~, ~~wherein said gel structure is loaded with a solute~~;

providing a substrate, wherein said substrate comprises a polymer material;

providing functional groups on said polymer material;

adding a crosslinking material to said cellulose ~~ether gel~~, wherein said crosslinking material ~~for~~ reacts~~ing~~ with said cellulose and said functional groups and thereby ~~capable of~~ forms a cellulose ether gel and attaches~~ing~~ said cellulose ether gel to ~~a~~ the substrate to form a cellulose ether gel structure;

loading said cellulose gel structure with a solute ~~coating said gel onto a substrate~~;

positioning said loaded gel structure to said target location; and

increasing the temperature of said loaded gel structure from an initial temperature to a temperature at or above the transition temperature of said gel~~,~~

~~wherein said substrate comprises a polymer material~~.

19. (Currently amended) The method of claim 18, wherein:

said polymer material is polyethylene terephthalate;

said functional groups comprise amine groups; and

said crosslinking material comprises divinylsulfone.

20. (Previously presented) The method of claim 19, further comprising the step of exposing said polyethylene terephthalate to ethylenediamine to form said amine groups.

21. (Previously presented) A method of delivering solute to a target location, the method comprising the steps of:

providing a crosslinked thermosensitive cellulose ether gel structure, wherein said gel structure is loaded with a solute;

coating said gel onto a substrate;

positioning said loaded gel structure to said target location; and

increasing the temperature of said loaded gel structure from an initial temperature to a temperature at or above the transition temperature of said gel,

wherein:

said target location is located within a mammalian body;

said substrate is a medical device; and

said solute is a biologically active solute.

22. (Previously presented) The method of claim 21, wherein said step of increasing the temperature of said loaded gel structure is accomplished by exposing said loaded gel structure to an external liquid having a temperature greater than said initial temperature of said loaded gel structure.

23. (Previously presented) The method of claim 21, wherein said step of increasing the temperature of said loaded gel structure is accomplished by exposing said loaded gel structure to body temperature.

24. (Currently amended) A method of delivering solute to a target location, the method comprising the steps of:

providing ~~a~~ at least one ~~crosslinked thermosensitive~~ cellulose ~~ether gel structure, wherein said gel structure is loaded with a solute~~;

providing a substrate, wherein said substrate comprises a polymer material;

providing functional groups on said polymer material;

adding a crosslinking material to said cellulose ~~ether gel~~, wherein said crosslinking material ~~for~~ reacts~~ing~~ with said cellulose and said functional groups and thereby ~~capable of~~ forms a cellulose ether gel and attaches~~ing~~ said cellulose ether gel to ~~a~~ the substrate to form a cellulose ether gel structure;

loading said cellulose ether gel structure with a solute ~~coating said gel onto a substrate;~~

positioning said loaded gel structure to said target location; and

increasing the temperature of said loaded gel structure from an initial temperature below the transition temperature of said gel to a temperature at or above the transition temperature of said gel, wherein said step of increasing the temperature of said loaded gel structure results in the deswelling of said gel and the release of said solute from said gel~~;~~

~~wherein said substrate comprises a polymer material~~.

25. (Currently amended) The method of claim 24, wherein:
said polymer material is polyethylene terephthalate;
said functional groups comprise amine groups; and
said crosslinking material comprises divinylsulfone.

26. (Previously presented) The method of claim 25, further comprising the step of exposing said polyethylene terephthalate to ethylenediamine to form said amine groups.

27. (Previously presented) A method of delivering solute to a target location, the method comprising the steps of:
providing a crosslinked thermosensitive cellulose ether gel structure, wherein said gel structure is loaded with a solute;
coating said gel onto a substrate;
positioning said loaded gel structure to said target location; and
increasing the temperature of said loaded gel structure from an initial temperature below the transition temperature of said gel to a temperature at or above the transition temperature of said gel,
wherein said step of increasing the temperature of said loaded gel structure results in the deswelling of said gel and the release of said solute from said gel,
wherein:
said target location is located within a mammalian body;
said substrate is a medical device; and
said solute is a biologically active solute.

28. (Previously presented) The method of claim 27, wherein said step of increasing the temperature of said loaded gel structure is accomplished by exposing said loaded gel structure to an external liquid having a temperature greater than said initial temperature of said loaded gel structure.

29. (Previously presented) The method of claim 27, wherein said step of increasing the temperature of said loaded gel structure is accomplished by exposing said loaded gel structure to body temperature.